

REMARKS

The Official Action rejected Claims 1-3 and 12 under 35 USC § 102(b) as being anticipated by U.S. Patent No. 5,402,433 to James J. Stiscia. The remainder of the claims were rejected under 35 USC § 103(a) as being unpatenable over the Stiscia '433 patent in combination with one or more additional references. In this regard, Claims 4 and 5 were rejected as being obvious over the combination of the Stiscia '433 patent in view of U.S. Patent No. 5,241,702 to Paul W. Dent. Claims 6, 7 and 13 were rejected as being obvious over the Stiscia '433 patent, the Dent '702 patent and U.S. Patent No. 6,606,359 to Manbir Nag, et al. In addition, Claims 8-10 were rejected as being obvious over the Stiscia '433 patent in view of U.S. Patent No. 6,654,596 to Jan P. Jakobsson, et al. Finally, Claim 11 was rejected as being obvious over the Stiscia '433 patent in view of U.S. Patent No. 5,852,630 to Ehud Langberg et al, while Claim 14 was rejected as being obvious over the Stiscia '433 patent, the Langberg '630 patent and U.S. Patent No. 6,370,205 to Bengt Lindoff et al. Each of these rejections is traverse hereinbelow and Applicant respectfully requests reconsideration of the present application and allowance of the current set of claims in light of the following remarks.

As to the rejection of independent Claims 1 and 12, as well as dependent Claims 2 and 3, as being anticipated by the Stiscia '433 patent, it is notable that the Stiscia '433 patent does not teach or suggest a direct conversion receiver as recited by independent Claim 12 or a method of DC compensation for a direct conversion radio receiver as recited by independent Claim 1. Instead, the Stiscia '433 patent is directed to an apparatus and method for controlling a laser driver so as to appropriately bias a laser and modulate the signals produced by the laser. In order to properly bias and modulate the laser, the Stiscia '433 patent describes a feedback network that provides feedback signals to the laser driver such that the laser can continue to be driven in an appropriate manner while taking into account the signals previously emitted by the laser.

Thus, the Stiscia '433 patent is not directed to a receiver of any sort, but is, instead, a laser transmitter. More particularly, the Stiscia '433 patent does not teach or suggests a direct conversion receiver as set forth by independent Claim 12 or a method of DC compensation for a direct conversion radio receiver as set forth by independent Claim 1. Thus, even when viewed from a relatively high level, the Stiscia '433 patent does not

anticipate independent Claims 1 and 12, as well as dependent Claims 2 and 3.

As a result of its being directed to a laser transmitter as opposed to a direct conversion receiver, the Stiscia '433 patent also fails to teach or suggests a number of the elements recited by each of the independent claims. For example, independent Claims 1 and 12 recite the step of and the means for "determining the modulation extremes of a received modulated signal". Similarly, independent Claim 14 recites "a mixer circuit for providing quadrature related signals from a received modulated signal". As noted above, the Stiscia '433 patent is directed to a laser transmitter and, as such, only processes a transmitted signal, as opposed to receiving any type of modulated signal as recited by each independent claim.

Additionally, the Stiscia '433 patent does not teach or suggest determining a DC offset for the received modulated signal from modulation extremes of the received modulated signal as also recited by each independent claim. In this regard, the Stiscia '433 patent includes two feedback circuits, namely, an average power control path and a modulation power control path. The average power control path generally determines the DC component of the laser diode output and compares the DC component to a reference average and adjusts the average laser drive power in response to that comparison. Notably, the average power control path does not take into account the extremes of the modulation, but instead merely determines the DC component without regard to the modulation extremes. In contrast, the modulation power control path does determine the maximum and minimum peaks in the laser diode output. In particular, the modulation power control path determines the average of the maximum and minimum peaks in the laser diode output and compares the average to the DC component of the laser output as provided by the average power control path. Based upon this comparison, the modulation power control path provides feedback to the laser driver such that the laser diode is appropriately driven such that the modulation envelope associated with the signals produced by the laser is maintained in a consistent manner even as the laser ages and it exposed to temperature fluctuation, thereby avoiding clipping and other deleterious effects.

Thus, the Stiscia '433 patent does determine the modulation extremes of the signals transmitted by the laser, but does not take those modulation extremes into account

in determining the DC offset as recited by the claimed invention. Instead, the modulation extremes are utilized in determining the size of the modulation envelope utilized by the laser with the DC component of the laser being controlled by a different control path that does not take into account the modulation extremes. Thus, the Stiscia '433 patent does not determine a DC offset for the received modulated signal from the modulation extremes as recited by independent Claims 1, 12 and 14.

Still further, the Stiscia '433 patent does not teach or suggests processing the received modulated signal to compensate for the DC offset. In this regard, the Stiscia '433 patent does not teach or suggest processing a received modulated signal since the Stiscia '433 patent is directed, instead, to the modulation of a transmitted laser signal. Accordingly, the feedback provided by the average power control path and the modulation power path adjust is designed to appropriately control the transmission of the next signal, but does not in any way process a signal that has been previously modified and has now been received as recited by each independent claim.

Each of the secondary references likewise fails to teach or suggests the determination of modulation extremes which may thereafter be utilized to determine a DC offset and to subsequently process a received modulated signal as recited by independent Claims 1, 12 and 14. Thus, even if the secondary references were combined with the Stiscia '433 patent (a combination that Applicant submits is inappropriate as set forth below), the combination of references would likewise fail to teach or suggests the recitations of the claimed invention as set forth above.

Moreover, it is submitted that the combination of the Stiscia '433 patent with at least the Dent '702 patent, the Nag '359 patent, the Jakobsson ' 596 patent and the Lindoff '205 patent is inappropriate due to the divergence in technology between the Stiscia '433 patent and the secondary references. In this regard, the Stiscia '433 patent is directed to a laser transmitter as described above, while the Dent, Nag, Jakobsson and Lindoff patents are directed to various aspects of a radio receiver. Based on the significant differences introduced by the differences in the type of signals (laser v. radio frequency) and the type of component (transmitter v. receiver), it is submitted that the cited references do not provide the requisite motivation of suggestion to one of ordinary skill in the art, nor does one of ordinary skill in the art otherwise possess of the requisite

motivation or suggestion, to combine the Stiscia '433 patent with any one of the Dent, Nag, Jakobsson and Lindoff patents as would be required to sustain the obviousness rejection.

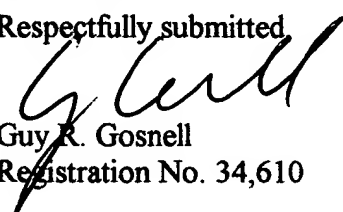
For each of the foregoing reasons, Applicants submit that the Independent claims, as well as the claims which depend therefrom, are not taught or suggested by this Stiscia '433 patent, taken individually or in combination with any one or more of the additional references. Thus, the rejections of the claims are therefore overcome.

CONCLUSION

In view of the amendments and the remarks presented above, it is respectfully submitted that all of the claims of the present application are in condition for immediate allowance. It is therefore respectfully requested that a Notice of Allowance be issued. The Examiner is encouraged to contact Applicant's undersigned attorney to resolve any remaining issues in order to expedite examination of the present application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136 (a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,


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